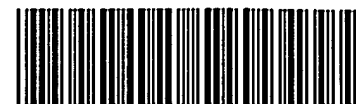# RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/630,518 A _____
Source: _____ JFW16 _____
Date Processed by STIC: _____ 02/08/2006 _____

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RAW SEQUENCE LISTING   DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A   TIME: 12:08:12

Input Set : A:\SEQ LIST 532792001100.txt
Output Set: N:\CRF4\02082006\J630518A.raw

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 4 <110> APPLICANT: THE SALK INSTITUTE FOR BIOLOGICAL STUDIES
 5         THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
 6         LILJEGREN, Sarah, Jean
 7         ECKER, Joseph, R.
 8         YANOFSKY, Martin, F.
10 <120> TITLE OF INVENTION: GENETIC CONTROL OF ORGAN ABSCISSION
13 <130> FILE REFERENCE: 532792001100
15 <140> CURRENT APPLICATION NUMBER: 10/630,518A
16 <141> CURRENT FILING DATE: 2003-07-29
18 <150> PRIOR APPLICATION NUMBER: US 60/264,974
19 <151> PRIOR FILING DATE: 2001-01-29
21 <150> PRIOR APPLICATION NUMBER: PCTUS02/01938
22 <151> PRIOR FILING DATE: 2002-01-22
24 <160> NUMBER OF SEQ ID NOS: 26
26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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31 <213> ORGANISM: Arabidopsis thaliana
33 <220> FEATURE:
34 <221> NAME/KEY: CDS
35 <222> LOCATION: (1)...(1452)
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42 aag att ctt gaa ggg ctt ctt aaa cat cca gag aac aga gaa tgt gct   96
43 Lys Ile Leu Glu Gly Leu Leu Lys His Pro Glu Asn Arg Glu Cys Ala
44             20                  25                  30
46 gac tgc aaa aca aaa ggt cca aga tgg gct agt gtt aat tta ggt atc  144
47 Asp Cys Lys Thr Lys Gly Pro Arg Trp Ala Ser Val Asn Leu Gly Ile
48         35                  40                  45
50 ttt atc tgc atg caa tgt tct ggg att cac agg agt ctc ggg gta cac  192
51 Phe Ile Cys Met Gln Cys Ser Gly Ile His Arg Ser Leu Gly Val His
52     50                  55                  60
54 ata tcg aag gtt cga tct gcc act ctg gac aca tgg ctc ccc gag cag  240
55 Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln
56 65                  70                  75                  80
58 gtt gca ttt ata cag tca atg gga aat gat aaa gca aat agt tac tgg  288
59 Val Ala Phe Ile Gln Ser Met Gly Asn Asp Lys Ala Asn Ser Tyr Trp
60                 85                  90                  95
62 gaa gca gag cta ccc cca aac tat gat aga gtt gga att gag aat ttt  336
63 Glu Ala Glu Leu Pro Pro Asn Tyr Asp Arg Val Gly Ile Glu Asn Phe
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RAW SEQUENCE LISTING   DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A   TIME: 12:08:12

Input Set : **A:\SEQ LIST 532792001100.txt**
Output Set: **N:\CRF4\02082006\J630518A.raw**

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66 ata cgt gca aag tat gaa gag aag aga tgg gtt tct aga ggg gaa aag    384
67 Ile Arg Ala Lys Tyr Glu Glu Lys Arg Trp Val Ser Arg Gly Glu Lys
68             115             120             125
70 gct aga tca cct cct aga gtc gag cag gaa cgg cgg aaa tct gtg gag    432
71 Ala Arg Ser Pro Pro Arg Val Glu Gln Glu Arg Arg Lys Ser Val Glu
72      130             135             140
74 aga agt ggg ccg gga tat gag cat gga cat agt agt agt cct gta aat    480
75 Arg Ser Gly Pro Gly Tyr Glu His Gly His Ser Ser Ser Pro Val Asn
76 145             150             155             160
78 ttg ttt gag gag agg aaa act att cca gca tct aga aca aga aat aat    528
79 Leu Phe Glu Glu Arg Lys Thr Ile Pro Ala Ser Arg Thr Arg Asn Asn
80             165             170             175
82 gtt gct gca acg aga ata aat ctt ccc gtg cct ccc caa gga ccc agt    576
83 Val Ala Ala Thr Arg Ile Asn Leu Pro Val Pro Pro Gln Gly Pro Ser
84             180             185             190
86 cag gtt ata aag cca cag cag aaa atg gag tct gca gct act cca gta    624
87 Gln Val Ile Lys Pro Gln Gln Lys Met Glu Ser Ala Ala Thr Pro Val
88             195             200             205
90 gag agg gag aaa caa gca gta aat gtt gca cca gca tca gat cct cca    672
91 Glu Arg Glu Lys Gln Ala Val Asn Val Ala Pro Ala Ser Asp Pro Pro
92      210             215             220
94 aag gtg gat ttt gct act gat ctg ttt aac atg cta tca atg gat gat    720
95 Lys Val Asp Phe Ala Thr Asp Leu Phe Asn Met Leu Ser Met Asp Asp
96 225             230             235             240
98 tcg act aca aat acc tca gag gca act cct ggc gat act cct gcc gat    768
99 Ser Thr Thr Asn Thr Ser Glu Ala Thr Pro Gly Asp Thr Pro Ala Asp
100             245             250             255
102 gat aac tca tgg gct ggc ttt cag tct gct gga agt ggt caa acg gca   816
103 Asp Asn Ser Trp Ala Gly Phe Gln Ser Ala Gly Ser Gly Gln Thr Ala
104             260             265             270
106 gag aaa att gtc aca gcc aag cct gct gag agc agt tct cct cca gct   864
107 Glu Lys Ile Val Thr Ala Lys Pro Ala Glu Ser Ser Ser Pro Pro Ala
108      275             280             285
110 tca tct tct gac ttt gag gat ttg ttt aag gac aca cct aat tta aca   912
111 Ser Ser Ser Asp Phe Glu Asp Leu Phe Lys Asp Thr Pro Asn Leu Thr
112      290             295             300
114 act caa caa gca cca aaa gat gtg aaa ggc gat atc atg agc ctg ttt   960
115 Thr Gln Gln Ala Pro Lys Asp Val Lys Gly Asp Ile Met Ser Leu Phe
116 305             310             315             320
118 gag aag acg aat ata gta tcg cct ttt gcc atg cat cag caa cag gtt  1008
119 Glu Lys Thr Asn Ile Val Ser Pro Phe Ala Met His Gln Gln Gln Val
120             325             330             335
122 gct atg ctc gct cag cag caa gcc ctt tac atg gct gca gcg aaa gct  1056
123 Ala Met Leu Ala Gln Gln Gln Ala Leu Tyr Met Ala Ala Ala Lys Ala
124             340             345             350
126 gct gga ggc act cca aac ggc gtg aat caa caa gct att gct aat gct  1104
127 Ala Gly Gly Thr Pro Asn Gly Val Asn Gln Gln Ala Ile Ala Asn Ala
128             355             360             365
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RAW SEQUENCE LISTING   DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A   TIME: 12:08:12

Input Set : A:\SEQ LIST 532792001100.txt
Output Set: N:\CRF4\02082006\J630518A.raw

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130 ctt aac gta gct tct gca aat tgg tca aac ccc ggc ggc tac cag atc   1152
131 Leu Asn Val Ala Ser Ala Asn Trp Ser Asn Pro Gly Gly Tyr Gln Ile
132     370               375               380
134 ccc gga atg act aac ccc gta ggt ggt caa gct gat ctc cag aaa ctt   1200
135 Pro Gly Met Thr Asn Pro Val Gly Gly Gln Ala Asp Leu Gln Lys Leu
136 385               390               395               400
138 atg caa aac atg aat atg aac gca aac atg aac acg aga ccc gca caa   1248
139 Met Gln Asn Met Asn Met Asn Ala Asn Met Asn Thr Arg Pro Ala Gln
140               405               410               415
142 ccg caa gag aac act cta caa tac cca tca tcc agt ttc tac aca atg   1296
143 Pro Gln Glu Asn Thr Leu Gln Tyr Pro Ser Ser Ser Phe Tyr Thr Met
144               420               425               430
146 ggt caa gct aat caa gtg aac ggt atg acc cca aac tca acc ggt aaa   1344
147 Gly Gln Ala Asn Gln Val Asn Gly Met Thr Pro Asn Ser Thr Gly Lys
148           435               440               445
150 cct cag tca tca tcc gca acc caa cca aca agc acc aca cca tct tca   1392
151 Pro Gln Ser Ser Ser Ala Thr Gln Pro Thr Ser Thr Thr Pro Ser Ser
152     450               455               460
154 caa tca ggc aaa gac ttt gat ttc tct tcc ttg atg gat gga atg ttc   1440
155 Gln Ser Gly Lys Asp Phe Asp Phe Ser Ser Leu Met Asp Gly Met Phe
156 465               470               475               480
158 aca aaa cat tga                                                   1452
159 Thr Lys His  *
163 <210> SEQ ID NO: 2
164 <211> LENGTH: 483
165 <212> TYPE: PRT
166 <213> ORGANISM: Arabidopsis thaliana
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171 Lys Ile Leu Glu Gly Leu Leu Lys His Pro Glu Asn Arg Glu Cys Ala
172           20               25               30
173 Asp Cys Lys Thr Lys Gly Pro Arg Trp Ala Ser Val Asn Leu Gly Ile
174           35               40               45
175 Phe Ile Cys Met Gln Cys Ser Gly Ile His Arg Ser Leu Gly Val His
176     50               55               60
177 Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln
178 65               70               75               80
179 Val Ala Phe Ile Gln Ser Met Gly Asn Asp Lys Ala Asn Ser Tyr Trp
180           85               90               95
181 Glu Ala Glu Leu Pro Pro Asn Tyr Asp Arg Val Gly Ile Glu Asn Phe
182           100               105               110
183 Ile Arg Ala Lys Tyr Glu Glu Lys Arg Trp Val Ser Arg Gly Glu Lys
184           115               120               125
185 Ala Arg Ser Pro Pro Arg Val Glu Gln Glu Arg Arg Lys Ser Val Glu
186     130               135               140
187 Arg Ser Gly Pro Gly Tyr Glu His Gly His Ser Ser Ser Pro Val Asn
188 145               150               155               160
189 Leu Phe Glu Glu Arg Lys Thr Ile Pro Ala Ser Arg Thr Arg Asn Asn
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```
190                   165                   170                   175
191 Val Ala Ala Thr Arg Ile Asn Leu Pro Val Pro Pro Gln Gly Pro Ser
192                   180                   185                   190
193 Gln Val Ile Lys Pro Gln Gln Lys Met Glu Ser Ala Ala Thr Pro Val
194             195                   200                   205
195 Glu Arg Glu Lys Gln Ala Val Asn Val Ala Pro Ala Ser Asp Pro Pro
196       210                   215                   220
197 Lys Val Asp Phe Ala Thr Asp Leu Phe Asn Met Leu Ser Met Asp Asp
198 225                   230                   235                   240
199 Ser Thr Thr Asn Thr Ser Glu Ala Thr Pro Gly Asp Thr Pro Ala Asp
200                   245                   250                   255
201 Asp Asn Ser Trp Ala Gly Phe Gln Ser Ala Gly Ser Gly Gln Thr Ala
202                   260                   265                   270
203 Glu Lys Ile Val Thr Ala Lys Pro Ala Glu Ser Ser Ser Pro Pro Ala
204             275                   280                   285
205 Ser Ser Ser Asp Phe Glu Asp Leu Phe Lys Asp Thr Pro Asn Leu Thr
206       290                   295                   300
207 Thr Gln Gln Ala Pro Lys Asp Val Lys Gly Asp Ile Met Ser Leu Phe
208 305                   310                   315                   320
209 Glu Lys Thr Asn Ile Val Ser Pro Phe Ala Met His Gln Gln Gln Val
210                   325                   330                   335
211 Ala Met Leu Ala Gln Gln Gln Ala Leu Tyr Met Ala Ala Ala Lys Ala
212             340                   345                   350
213 Ala Gly Gly Thr Pro Asn Gly Val Asn Gln Gln Ala Ile Ala Asn Ala
214             355                   360                   365
215 Leu Asn Val Ala Ser Ala Asn Trp Ser Asn Pro Gly Gly Tyr Gln Ile
216       370                   375                   380
217 Pro Gly Met Thr Asn Pro Val Gly Gly Gln Ala Asp Leu Gln Lys Leu
218 385                   390                   395                   400
219 Met Gln Asn Met Asn Met Asn Ala Asn Met Asn Thr Arg Pro Ala Gln
220                   405                   410                   415
221 Pro Gln Glu Asn Thr Leu Gln Tyr Pro Ser Ser Ser Phe Tyr Thr Met
222             420                   425                   430
223 Gly Gln Ala Asn Gln Val Asn Gly Met Thr Pro Asn Ser Thr Gly Lys
224             435                   440                   445
225 Pro Gln Ser Ser Ser Ala Thr Gln Pro Thr Ser Thr Thr Pro Ser Ser
226       450                   455                   460
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228 465                   470                   475                   480
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234 <211> LENGTH: 1452
235 <212> TYPE: DNA
236 <213> ORGANISM: Arabidopsis thaliana
238 <220> FEATURE:
239 <221> NAME/KEY: CDS
240 <222> LOCATION: (1)...(1452)
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245  1               5                   10                  15
247 aag att ctt gaa ggg ctt ctt aaa cat cca gag aac aga gaa tgt gct   96
248 Lys Ile Leu Glu Gly Leu Leu Lys His Pro Glu Asn Arg Glu Cys Ala
249             20                  25                  30
251 gac tgc aaa aca aaa ggt cca aga tgg gct agt gtt aat tta ggt atc  144
252 Asp Cys Lys Thr Lys Gly Pro Arg Trp Ala Ser Val Asn Leu Gly Ile
253         35                  40                  45
255 ttt atc tac atg caa tgt tct ggg att cac agg agt ctc ggg gta cac  192
256 Phe Ile Tyr Met Gln Cys Ser Gly Ile His Arg Ser Leu Gly Val His
257     50                  55                  60
259 ata tcg aag gtt cga tct gcc act ctg gac aca tgg ctc ccc gag cag  240
260 Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln
261 65                  70                  75                  80
263 gtt gca ttt ata cag tca atg gga aat gat aaa gca aat agt tac tgg  288
264 Val Ala Phe Ile Gln Ser Met Gly Asn Asp Lys Ala Asn Ser Tyr Trp
265                 85                  90                  95
267 gaa gca gag cta ccc cca aac tat gat aga gtt gga att gag aat ttt  336
268 Glu Ala Glu Leu Pro Pro Asn Tyr Asp Arg Val Gly Ile Glu Asn Phe
269             100                 105                 110
271 ata cgt gca aag tat gaa gag aag aga tgg gtt tct aga ggg gaa aag  384
272 Ile Arg Ala Lys Tyr Glu Glu Lys Arg Trp Val Ser Arg Gly Glu Lys
273         115                 120                 125
275 gct aga tca cct cct aga gtc gag cag gaa cgg cgg aaa tct gtg gag  432
276 Ala Arg Ser Pro Pro Arg Val Glu Gln Glu Arg Arg Lys Ser Val Glu
277     130                 135                 140
279 aga agt ggg ccg gga tat gag cat gga cat agt agt agt cct gta aat  480
280 Arg Ser Gly Pro Gly Tyr Glu His Gly His Ser Ser Ser Pro Val Asn
281 145                 150                 155                 160
283 ttg ttt gag gag agg aaa act att cca gca tct aga aca aga aat aat  528
284 Leu Phe Glu Glu Arg Lys Thr Ile Pro Ala Ser Arg Thr Arg Asn Asn
285                 165                 170                 175
287 gtt gct gca acg aga ata aat ctt ccc gtg cct ccc caa gga ccc agt  576
288 Val Ala Ala Thr Arg Ile Asn Leu Pro Val Pro Pro Gln Gly Pro Ser
289             180                 185                 190
291 cag gtt ata aag cca cag cag aaa atg gag tct gca gct act cca gta  624
292 Gln Val Ile Lys Pro Gln Gln Lys Met Glu Ser Ala Ala Thr Pro Val
293         195                 200                 205
295 gag agg gag aaa caa gca gta aat gtt gca cca gca tca gat cct cca  672
296 Glu Arg Glu Lys Gln Ala Val Asn Val Ala Pro Ala Ser Asp Pro Pro
297     210                 215                 220
299 aag gtg gat ttt gct act gat ctg ttt aac atg cta tca atg gat gat  720
300 Lys Val Asp Phe Ala Thr Asp Leu Phe Asn Met Leu Ser Met Asp Asp
301 225                 230                 235                 240
303 tcg act aca aat acc tca gag gca act cct ggc gat act cct gcc gat  768
304 Ser Thr Thr Asn Thr Ser Glu Ala Thr Pro Gly Asp Thr Pro Ala Asp
305                 245                 250                 255
307 gat aac tca tgg gct ggc ttt cag tct gct gga agt ggt caa acg gca  816
308 Asp Asn Ser Trp Ala Gly Phe Gln Ser Ala Gly Ser Gly Gln Thr Ala
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VERIFICATION SUMMARY   DATE: 02/08/2006
PATENT APPLICATION: **US/10/630,518A**   TIME: 12:08:13

Input Set : **A:\SEQ LIST 532792001100.txt**
Output Set: **N:\CRF4\02082006\J630518A.raw**